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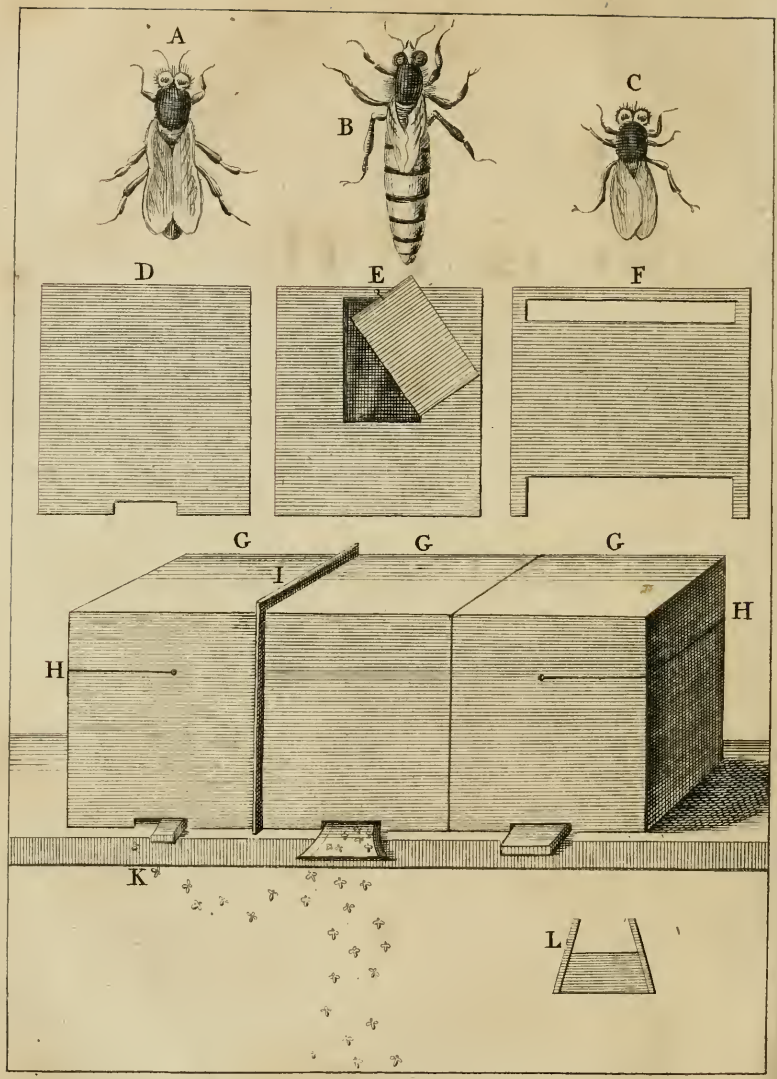

A. *The Drone or Male Bee.*
B. *The Queen or Female Bee.*
C. *The working Bee of no Sex.*
D. *Front of a Single Box.*
E. *Back.*
F. *End.*
GGG. *Three Boxes joined.*
H. *The Tape which ties the End Boards.*
I. *The Tin stopping the Communication.*
K. *The Bees issuing out of the Box to be taken away.*
L. *The Landing Board.*

Collateral BEE-BOXES.

Or, a New, Eaſy, and Advantageous

METHOD

OF

MANAGING BEES.

IN WHICH

Part of the HONEY is taken away, in an eaſy and pleaſant Manner, without deſtroying, or much diſturbing the BEES; early Swarms, if deſired, are encouraged, and late ones prevented.

By STEPHEN WHITE, M. A.
Rector of *Holton* in *Suffolk*.

Sic Vos *jam* Vobis.
Pauperis eſt numerare Pecus. OVID. MET.

LONDON,
Printed, and ſold by LOCKYER DAVIS, and CHARLES REYMERS againſt *Grays-Inn-Gate*, *Holbourn*.
MDCCLVI.

THE

INTRODUCTION.

THE firſt Inventor of the Octagonal Bee-Boxes, which we now and then meet with in the Gardens of the Curious, was *John Gedde* Eſq. He publiſhed his Invention, in the Year 1675, having obtained the King's Patent for the ſame, and likewiſe the Approbation of the Royal Society. Theſe Boxes appear, at firſt Sight, to be very expenſive and unwieldy: and every one, I believe, who has experienced them, has found, to his Coſt, that they anſwer only *one* of the *Ends* the ingenious Gentleman propoſed by them, and which,

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as his principal End, he ſets forth in the Title Page of his *Engliſh Apiary*, viz. *To free the Owners from the great Charge and Trouble that attends the Swarming of Bees:* that is, in other Words, to deprive the poor Bee-Maſter, of all the Profit, and one of the higheſt Pleaſures he can expect, from theſe uſeful and delightful Inſects. This End, if it be a deſirable one, every Bee-Miſtreſs may obtain, without beating her Brains, but by only ordering her Artificer to provide a large Quantity of Straw, and make her Hives to contain two Buſhels a-piece.

Many Years after this, Mr. *Warder* of *Croydon* publiſhed his *true Amazons*, or *Monarchy of Bees*, which has gone through no leſs than Eight Editions. He directs you, how to make the ſame Sort of Boxes, with

ſome, not very material Alterations. He calls this a new Diſcovery and Improvement, and recommends it likewiſe to his Reader, by telling him, it will *prevent Swarming*.

In the Approbation of the Royal Society, prefixed to Mr. *Gedde's* Book, we are told by the Gentlemen of that illuſtrious Body, that in the Treatiſes, relating to the Management of Bees, we find ſeveral Draughts, of different Bee-Hives, to the Intention of *preventing Swarming*, but that none of thoſe Ways have proved ſo effectual, as the Method preſcribed by Mr. *Gedde*.

Bleſs me! (have I often ſaid to myſelf) why ſo much Pains, to hinder me from increaſing my ſmall Stock? Why ſhould theſe Gentlemen deprive me of a Pleaſure I ſo ardently look and long for every Spring, and which

I am

I am more delighted with, than all the other Pleaſures of the Month of *May?* Can the whole Brute Creation afford a more entertaining Scene, than to ſee a vaſt Multitude of theſe diminutive People, merely for the Good of the State they are leaving for ever; to ſee them, I ſay, with a cheerful Alacrity, abandoning their native Country, to go and ſettle in a foreign Region, they know not where; quitting all their Treaſures, which they have laboured ſo hard to procure, and fought ſo valiantly to defend, and going to ſeek an empty Houſe, not knowing whether they ſhall be able to find one. Behold my little Emigrants! in Spight of all our *Swarm-Preventers*, behold, I ſee a Cloud of them, overſhadowing my Garden! See them hurrying backwards and forwards, exulting in the Preſence

Preſence of their Sovereign, obſerving her Motions, and waiting her Commands, while She, with the double Anxiety of a Queen, and a Parent, is looking for a convenient Branch, on yonder Eſpaliers, where She may reſt a-while, and conſult what Courſe She is to take, and whither She ſhall lead her loyal and beloved Subjects.

But I muſt recall my licentious Imagination: I muſt leave theſe Ecſtaſies, how pleaſing ſoever, and conſider, that while I am tranſported, the courteous Reader is unedified. It is Time he ſhould know, yet I muſt detain him a little longer, before he does know, what he is to find in the following Sheets.

The Smallneſs of my Cure, has afforded me more leiſure Hours, than

uſually

uſually fall to the Share of a great Part of my Brethren. Many of theſe Hours, during almoſt the whole Space of a now declining Life, have been employed in my Bee-Garden; with as much Innocence, I hope, and a great deal more to my Taſte and Entertainment, than if they had been ſpent, with a Gun and Pointer in the Fields, or, in my Parlour, with a Pack of Cards. Theſe faſhionable Amuſements (eſpecially the latter) can afford little Entertainment to a contemplative Mind: But the ſurveying the Works of Nature, particularly the Inſtincts and Polity of many living Creatures, and the wonderful Methods they make uſe of, for their Suſtenance and Safety, will give a real and high Delight to a rational Soul: and as it is next to impoſſible,

poſſible, to turn our Thoughts to the Obſervation of theſe Creatures, without lifting them up, at the ſame Time, in Adoration of Him who formed them, this will, in a manner, ſanctify our Pleaſures, and turn even our *Diverſions*, into a *Sacrifice* to our *Maker*.

Manifold are the Works of God, and in Wiſdom has he made them all. But if my Partiality for my favourite Inſects, does not very much deceive me, their indefatigable Induſtry, their Loyalty to their Queen, the geometrical Accuracy of their Combs, *&c.* are Wonders, not to be met with, in any of the innumerable Beaſts, Birds, or Inſects, that are upon the Face of this Earth.

My Fondneſs for theſe little Animals, ſoon put me upon endeavour-

ing, if poſſible, to ſave them from Fire and Brimſtone. I thought I had Reaſon to be content, to ſhare their Labours, for the preſent, and great Reaſon to rejoice, if I could, at the ſame Time preſerve their Lives, to work for me another Year. The main Drift therefore of all my Obſervations and Experiments has been, to diſcover an eaſy and cheap Method, ſuited to the Abilities of the common People, of taking away ſo much Honey as can well be ſpared, without deſtroying or ſtarving the Bees: And by the ſame Means to *encourage*, rather than *prevent* Swarming, I mean firſt, and ſeaſonable Swarms; for ſecond, and late Swarms, being little worth, and very prejudicial to the old Stocks, they ought, and in the Method I propoſe, may eaſily be pre-

vented. This Deſign, I can aſſure every Lover of Bees, and every Lover of himſelf, *i. e.* of his own Intereſt, with all the Confidence of a Projector, I have, after a great many unavailing Experiments, at laſt fully accompliſhed.

I don't wonder, that *Epicurus's* Atoms, without either Hand or Head to direct them, ſhould be ſo long in forming the Univerſe, and ſhould make ſo many wrong and imperfect Worlds, before they hit on a right one, ſince my Deal Boards, much fitter Materials for the Purpoſe, than Atoms, aſſiſted with all the Mechanical Skill, that I, and my ingenious Carpenter, are Maſters of, have been jumbled together, in ſuch a Variety of wrong and ineffectual Forms, and been

almoſt Forty Years in making a Bee-Box; ſuch a plain and ſimple Bee-Box, as you will ſee in my firſt Chapter.

A New,

A New, Eaſy, and Advantageous

METHOD

OF

MANAGING BEES.

CHAP. I.

Directions how to make a ſingle Box.

IT may be made of Deal, or any other Boards, well ſeaſoned, that are not apt to warp or ſplit. The Boards ſhould be near an Inch thick. Let it be eight Inches and half in Height and Breadth, every Way, meaſuring within, and including the Space the thin Boards take up at the Ends, as if there were no ſuch Boards.

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Boards. With theſe Dimenſions, it will contain about a Peck and one Pint. The Box is in Figure Four Square. The Front Part, muſt have a Door cut in the Middle of the Bottom Edge, about Four Inches wide, and half an Inch in Height, which will give free Liberty to the Bees to paſs through, yet not be large enough for their Enemy the Mouſe to enter. In the back Part you muſt cut a Hole with a Rabbit in it, in which you are to fix a Pane of the cleareſt and beſt Crown-Glaſs, about Five Inches in Length, and Three in Breadth, and faſten it with Putty. Let the Top of the Glaſs be placed, as high as the Roof within-ſide, that you may ſee the upper Part of the Combs, where the Bees, with their Riches, are moſtly placed. You will, by that means, be better able to judge of

of their State and Strength, than if your Glaſs was fixt in the Middle. Such as are deſirous of ſeeing more of the Bees Works, may make the Glaſs as large as the Box will admit, without weakening it too much; which may be prevented by nailing a little Slip of Board croſs the Bottom. The Glaſs muſt be covered with a thin Piece of Board, by Way of Shutter, which may be made to hang over the Glaſs, by a Piece of Tape, going through the upper Part of the Shutter, and faſtened on the Top of the Box, by thruſting both Ends into a Gimlet Hole; and after driving a Peg pretty hard into the Hole, you may cut off the Peg cloſe to the Box.

As for the two other Sides of the Box, which, for Diſtinction Sake, I call *Ends*, they are not to be wholly encloſed.

encloſed. A Space is to be left in each End, near an Inch wide at the Top, and another Space more than an Inch wide at the Bottom: which Spaces are to be extended in Length, the whole Breadth of the Box. Thro' theſe, the Bees are to have a Communication from one Box to another. To form theſe Communications, a thin Piece of ſlit Deal muſt be let into the Edges of the Front and the back Boards, ſo as to be fluſh with the Edges of thoſe Boards.

In the next Place, you are to provide a Piece of ſlit Deal, full half an Inch thick, and large enough to cover one of the Ends, but to be uſed indifferently, ſometimes at one End, and ſometimes at the other: for which Reaſon, it is not to be nailed, but tied on, in the following Manner; *viz.* Take about three Quarters of

of a Yard of pretty ſtrong Tape, which I chuſe, becauſe it is leſs apt to relax and ſlacken than Packthread. Fix one End of the Tape, in the Front-Board, about Six Inches above the Mouth, and directly over the Middle of it. Let this End of the Tape be faſtened in a Gimlet-Hole, with a Peg drove hard in, and then cut off cloſe to the Board, as was directed for the Shutter. You are next to bore a Hole on each Side of your Glaſs, Six Inches and a Half from the Bottom of the Box: into each of theſe Holes, drive a Peg, which may ſtand out more than an Inch from the Box. Let the Pegs be made of Aſh, which is a tough Wood, and let one End of them be flat, that you may ſcrue them out or in, the more conveniently. When this is done, take

your looſe End-Board, and ſet it in its proper Place, ſo that it may cover one of the Ends, it matters not which: then drawing your Tape as tight as you can over it, faſten the End of it to one of the Pegs by the Side of the Glaſs. This will confine your End-Board, and keep the upper Part of it cloſe to the Box: and if the lower Part ſhould gape a little, or ſtart from the Box, you may keep it tight, by a Nail or two, drove ſo gently into the Stool, on which the Box is placed, that you may, whenever you have Occaſion, draw them out with your Fingers: Or, if you like it better, you may add another Tape, with Pegs as before, to go croſs the lower Part of the End-Board.

The Gimlet Holes I have directed, need not be carried quite through the Board,

Board, and it is better they ſhould not: for if any Part of the String appears within the Box, it will give Offence to the Bees, and coſt them a great deal of Pains to pull it to Pieces.

You have now only to fix a Stick, croſſing the Box from End to End, about Three Inches from the Bottom, to be a Stay to the Combs; and when you have painted the whole, to make it more durable, your Box is finiſhed.

The judicious Bee-Maſter, I hope, will here obſerve, that the Form of the Box I have been deſcribing, is as plain, as it is poſſible for it to be. It is little more than Three Square Pieces of Board nailed together: ſo that a poor Cottager, who has but Ingenuity enough to ſaw a Board into the given Dimenſions, to ſquare

it exactly, and to drive a Nail, may make his own Boxes well enough, without the Help, or the Expence of a Carpenter.

CHAP. II.

How to hive a Swarm into the Boxes.

TO do this, you are to take a Box, with one End-Board tied to it (as before directed) on your Right Hand, and another Box, with the End-Board tied to it on your Left Hand; ſet theſe two together, leaving the Communications open from one Box to another: then tye the Boxes together, as faſt as you can, with a String going Five or Six Times round them. The Boxes ſhould not be

be tied, till you are juſt going to uſe them, becauſe the String will grow ſlack with ſtanding, and then the Boxes will be apt to ſlip one from the other, as you handle them.

Be careful to tye the Shutters cloſe to the Glaſs, that the Light may not enter: for the Bees ſeem to look upon the Light, as a Hole, or Breach in their Houſe, and, on that Account, may not ſo well like their new Habitation. But the principal Thing to be obſerved, at this Time, is to cover the Boxes, as ſoon as ever the Bees are hived, with a Linen Cloth, thrown looſely over them; and it may be proper to lay ſome green Boughs upon them beſides, to protect them from the piercing Heat of the Sun. Boxes will admit the Heat much ſooner than Straw-Hives; and if the Bees find their Houſe too

hot for them, they will be wiſe enough to leave it. In all other Reſpects, they are to be hived in Boxes, after the ſame Manner as in common Hives, which being well known, I need not ſtay to give particular Directions concerning it.

CHAP. III.

In what Manner and Situation to place the Bees when hived.

MR. *Gedde*, and Mr. *Warder*, have directed very *coſtly Bee-Houſes* (as it is fit they ſhould) for the Reception of their *fine-wrought Boxes*. Theſe may ſerve well enough for an Ornament to a Gentleman's Garden, or for the Amuſement of the Curious: but my Endeavours are chiefly

chiefly laid out, and my Boxes intended, for the Uſe and Advantage of the induſtrious Farmer, and poor Cottager: and I do here aſſure them, from my own long Experience, that their Bees will be ſafe, in theſe Boxes, though they ſtand in the open Air, in the coldeſt Winter. Be but careful to ſkreen them from the *Sun*, and then bid Defiance to the puffing Cheeks of *Boreas:* ſkreen them from the Summer Sun, becauſe the Heat of it is greater than the Bees, or their Works, can bear: and ſkreen them from the Winter Sun, the Warmth of which will draw them from that lethargic State, which is natural to Bees, as well as many other Inſects, in the Winter Seaſon. A certain Degree of Cold, and a greater Degree of it than is commonly imagined, is favourable to Bees in Winter: it chills,

chills, and benumbs their little Bodies, ſo that their animal Spirits are very little waſted by Perſpiration, and conſequently, there is little or no Occaſion to recruit them by Eating. If a ſharp Froſt continues for the Space of Two or Three Months, without Intermiſſion, you may obſerve, through your Glaſſes, that the Bees are, all this Time, cloſely linked together in Cluſters, between the Combs. If they are not altogether without Motion, yet 'tis certain they ſtir not from their Places, while the Cold continues, and conſequently eat not at all: and if ſuch a Froſt was to laſt all the Winter, our Bees, I am perſuaded, would be no Sufferers, either by the Cold or by Faſting: on the contrary, they would ſave all their Winter Stores: and if you could ſuppoſe the Flowers to ſpring ſuddenly

denly out of the Ground, at the End of this Froſt, they would as ſuddenly recover their former Activity, with the returning Heat, and go forth to their Labours, with their uſual Vigour and Alacrity. This gives us a plain, and the true Reaſon, why more Bees are obſerved to die in warm and open, than in cold and ſevere Winters: and for the ſame Reaſon, Mr. *Gedde's* Obſervation, I am confident, is a very juſt one, that *Bees, ſtanding on the North Side of a Building, whoſe Height intercepts the Sun Beams all the Winter, will waſte leſs of their Proviſion (almoſt by Half) than others ſtanding always in the Sun; for coming ſeldom forth, they eat little, and yet in the Spring are as forward to work, and to ſwarm, as thoſe that had twice as much Honey, in the Autumn before.*

Let your Bees therefore be ſo placed, that the Sun may not ſhine upon them at all in the Winter, to entice them Abroad, when they can get nothing but an Appetite, which, though it be neceſſary to the Health of a Man, is not always requiſite to the Health of an Inſect.

As for the Summer Sun, though the Boxes (as I have ſaid) muſt be carefully protected from it, the experienced Bee-Maſter will eaſily underſtand my Meaning, *viz.* that it muſt not be ſuffered to dart its Rays on the Top, or Sides of the Boxes, which they will by no means bear; but it ought to ſhine on the Skirts of them, where the Entrance for the Bees is made, which will be of Service to them, in many Reſpects.

Your Boxes muſt likewiſe be ſheltered from Rain, as common Hives are;

are; for the Wet getting in between the Joints, will cauſe the Combs to mould, and otherwiſe incommode the Bees. The following eaſy Frame will ſufficiently defend them both from Sun and Rain.

Get a pretty thick Board Seven Feet and a Half long, and One Inch wider than the Boxes, for your Floor. Let the upper Side of it be very ſmooth and even, that the Boxes may ſtand true upon it: then fix in the Ground Four Oaken Poſts, about the Bigneſs of ſuch as are uſed for drying Linen. Let the Poſts, or Pillars, be faſtened together at each End with a ſtrong Piece of Board, about a Foot from the Ground in this Form, ɔ c for the Ends of the Floor to reſt upon. This Floor muſt be ſupported in the Middle, to keep it from ſwagging: you may then place on it Three Colonies

or Setts of Boxes, conſiſting of Three Boxes to a Sett. And there will be Room, if Need be, to add a fourth, to one of the Setts. There ſhould be ſeveral Awger-Holes bored in proper Places in your Pillars, in which Holes you are to thruſt pretty ſtrong wooden Pins, on which, Floors may be ſupported for Two more Rows of Boxes. Theſe Floors muſt be placed, in Summer, Four or Five Inches above the Boxes underneath: in Winter they may be let down, ſo as to lye flat upon the Boxes, which will keep them cloſer, and warmer. You are then to defend them from the Sun by placing thin looſe Boards, one upon another, edgeways, from Pillar to Pillar, in the Front, remembring to cut Niches in theſe Boards, over againſt every Mouth, or Entrance into the Boxes:

Then

Then make ſome Landing-Boards, for the Bees to pitch upon, in the following Manner: Take a Piece of Board three or Four Inches wide, and in Length, about Six Inches on one Edge, but ſhorter on the other. On one Side of this, cloſe to each End, nail a Slip of Wood, ſo that it may extend about Two Inches beyond the Board, *See Figure* L. Thruſt the Two Ends ſtanding out, into the Mouth of the Box, ſo that the Landing-Board may come cloſe to the Floor, and be level with it, or rather bending a little downwards.

The laſt Thing you are to provide, is a Cover or Roof for the whole, which had beſt be a moveable one. This may be made with Two broad Boards, or Four narrow ones feather-edged, faſtened together, in the Form of the Roof of a Houſe, only much

flatter.

flatter. In this Roof, you may make Four Holes, for the Tops of the Four Pillars to go into, which will be a ſufficient Stay or Faſtening for it, and you may let it down, or raiſe it up, according to the Number of your Boxes, or take it quite off, whenever there is Occaſion. I have only to add, that every Part of the Frame ſhould be well painted, to make it bear the Weather, and be the more laſting.

CHAP. IV.

How to order the Bees in the Boxes.

HAVING hived a Swarm in Two Boxes, as before directed, and placed them, in the Evening, where they are to remain; the String, with which

which you tied the Boxes together, may then be taken off: and the Shutters for your Glaſſes being at Liberty, obſerve which of the Boxes the Bees have made Choice of, for their preſent Reſidence, and ſtop the Mouth of that Box with a Slip of Board, the End of which is fitted to the Opening, ſo that they may work only out of the empty Box: The Reaſon of which will appear by and by. After a few Days, if the Weather be fine, your little Labourers will ſhew you a beautiful Specimen of their Work: You will ſee, with Pleaſure, Two or Three delicate, white, and almoſt tranſparent Combs, appear among the Bees. They will fill one Box with their Works, before they begin in the other; ſoon after they have begun in the ſecond, it will be proper to give them a third, which is

thus

thus performed. Your provident Bees, by this Time, will have joined the End-Board to the Box, all round the upper Communication, with a gluey Sort of Reſin, which the Ancients called *Propolis*; for they are careful to ſtop every little Hole or Crevice that is found in their Houſes, with this reſiny Subſtance, juſt as we careen our Ships with Pitch and Tar. You are therefore to take a thin Knife, and cut through this Reſin, till you find the End-Board at Liberty. After this, you muſt looſen the String that ties this Board, and having provided a Sheet of double Tin, thruſt it gently between the Box and the End-Board, to ſeparate them: then taking away the Board, ſet an empty Box in the Room of it. Which done, with a gentle Hand draw away your Tin, and thruſt the new Box cloſe to the other.

Your Bees will be pleaſed with this Addition to their Habitation. Inſtead of a Dwelling of *Straw*, which is no better than living in a *Barn*, you had before given them a *Hall*, and *Parlour*, neatly wainſcoted: and now you furniſh them with a *Drawing-Room*, where for ſome time, they may cool and refreſh themſelves in a ſultry Day, and afterwards fill it with their Stores.

You are here likewiſe to remember, that the Mouth of this third Box muſt be ſtopped like the firſt, that their Entrance may be only in the ſecond or middle Box.

CHAP. V.

How to take away Part of the Honey, without deſtroying, or much diſturbing the Bees.

NO true Lover of Bees, I am perſuaded, ever lighted the fatal Match, that was to deſtroy his little Innocents, with livid Flames, and a Smoak, that ſtrikes them dead with its intolerable Stench, without much Concern and Uneaſineſs. Beſides; we are not to imagine, that the bountiful Creator, who has indeed given us all Things richly to *enjoy*, has likewiſe given us ſuch an uncontrollable *Right*, of *Life* and *Death*, over all his Creatures, that we may kill them at, and for our *Pleaſure*. I know no Right we have over

over the Life of the meaneſt Inſect, or vileſt Worm that creeps upon the Earth, unleſs the killing it be, ſome way or other, uſeful and beneficial to us. We may take away the Lives of our Cattle, in order to ſupport our own with the Fleſh of them: but it would be a criminal Piece of Cruelty, as well as Folly, to butcher an innocent Sheep, meerly for the Sake of its Fleece, which we might take again and again without hurting it. If then we can take from our Bees, a conſiderable Quantity of their ſuperfluous Honey and Wax, without injuring them; if they will work for us another, and many other Years, and every Year pay us fair and reaſonable Contributions; why ſhould we treat *them* with unneceſſary Cruelty, and hurt *ourſelves* by a Greedineſs, that will turn to our Prejudice? Avarice

often miſtakes its own Intereſt. It never can be made to underſtand, or believe, that *Dimidium plus toto.* It is evidently more to our Advantage, to ſpare the Lives of our Bees, and be content with Part of their Stores, than to kill, and take Poſſeſſion of the Whole.

We have long ſince been directed how to do this, in the Uſe of Mr. *Gedde's* Boxes: But the Method preſcribed, is ſo tedious and difficult, and ſo perilous too to the Operator, that it has very rarely been practiſed, and hardly ever attended with Succeſs. The Method I would recommend, and which I practiſe myſelf, with Eaſe and Safety, and high Delight, is as follows:

About the middle of *Auguſt*, by a little Inſpection through your Glaſſes, you may eaſily diſcover, which

which of your Colonies you may lay under Contribution. Such as have filled Three Boxes, will pretty readily yield you one of them, which is paying you a larger Tax, than any other *free-Britons*, (except the Men of *Totneſs*,) would be willing to comply with, *viz.* Seven Shillings in the Pound. It is beſt to take the Box where there are feweſt Bees, becauſe the Queen-Bee is not likely to be there. The propereſt Time, is about Two or Three o'Clock in the Afternoon; and though the Bees are active and buſy at this Time of Day, yet as you ſtand behind the Frame, you will need no Armour for the Attack, except, perhaps, a Pair of Gloves, and a broad-brimmed Hat ſlouched over your Eyes. The Operation itſelf is no more than this: Open the Mouth of the Box you are going to ſeize; or it

it may be better if you open only that half of it, which is furtheſt from the middle Box: then, with a thin Knife, cut through the Reſin with which the Bees have joined this Box to the middle one, till you find you have ſeparated them: after which, thruſt your Sheet of Tin gently between the Boxes, and your Work is done; and you will, with Pleaſure and Surprize, obſerve the Effects of it: for the Communication being ſtopped, the Bees in the two Boxes (where it is moſt likely their Queen is) will be a little diſturbed at the Operation, but thoſe in the ſingle Box will appear diſtracted. They ſoon become ſenſible, that their Sovereign is not amongſt them: they then run to and fro in the utmoſt Hurry and Confuſion, and ſend forth a mournful Cry, eaſily to be diſtinguiſhed from

their

their other Notes. Immediately it is proclaimed, throughout the Territories, that the *Society* is *diſſolved*. *Amiſſâ rupere fidem*; and that every one is to ſhift for himſelf as well as he can. Accordingly, they iſſue out at the new Door you have opened for them; but not in a Body, as when they ſwarm, for the Body, with Reſpect to this Box, is no more. Nor do they come out, with that calm and cheerful Activity, as when they go forth to their Labours; but now and then a Bee or two burſts out, with a wild Flutter, and in a viſible Rage and Diſorder: but this is quickly over; for no ſooner are they got abroad, but they ſpy their Fellows, and fly to them with eager Haſte, at the uſual Mouth of the middle Box: and knowing very well, by the Calmneſs of their Behaviour, that the Queen

is

is ſafe, and rejoicing at being again reſtored to the Common-wealth, they either forget, in the midſt of their Tranſports, or do not at all regret the Loſs of the Riches they have left behind them. Thus in an Hour or two, (for they go out ſlowly) you will have a Box of pure Honey, without a *living Bee* in it to moleſt you, and without *dead Bees* too, as you always have, when you burn them, which are mingled with your Honey, and both waſte and damage it.

When you carry off the Prize, (which having ſo fairly taken, you may with a ſafe Conſcience condemn, and enjoy with Pleaſure) you are to ſet an End-Board in the Room of it, for they will have no Occaſion for an empty Box before the following Spring: then drawing away your Tin, and tying the End-Board as tight as you can, with

with your Tape, you may take your Leave of them, wiſhing them a *cold Winter*, and a *ſound Sleep* till *February*.

CHAP. VI.

Of the Advantages of theſe Boxes above Straw-Hives, or the Boxes invented by Mr. Gedde.

1. NO Part of the Honey can be taken out of Straw-Hives, without deſtroying the Bees: (for driving them, is, in effect, deſtroying them) and this you are obliged to do, when your Hives are three or four Years old; becauſe then the Combs (not the Bees, as is vulgarly ſuppoſed) grow old, and unfit for Uſe: and our Bees, for what Reaſon I

know not, will not demoliſh their old Combs, in order to make new ones: ſo that by burning your *old Hives*, and your *poor ones*, neither of which yield much Honey, you commonly leſſen your Stock, as much, or more, than your Swarms will make good. Whereas in the Uſe of theſe Boxes, you are *every Year*, by Swarms, *encreaſing your Stock*; and barring Accidents, and excepting that you muſt, now and then, burn a very poor one, you *never diminiſh it*. For your Boxes, in this Method, are all of them, by Succeſſion, ſupplied with *new Combs*, before the old ones are decayed: and as for the Bees, if you guard them from *Accidents*, and ſave them from *Poverty*, they will continue, by Succeſſion, to the *End of the World*.

2. In

2. In this Method, you may, with very little Trouble, either give them *more*, or confine them in *leſs Room*, as there ſhall be Occaſion. If, in the Spring, you confine them to two Boxes, which are equal to a ſmall Hive, this will cauſe them to ſwarm early: if you allow them three, which contain as much as a large Hive, your Swarms will be later, but larger: the latter, I believe, will, for the moſt Part, turn to beſt Account. After the firſt Swarm, it will be a greater Advantage to you than is commonly imagined, to add a third, or, if need be, a fourth Box, to prevent ſecond and late Swarms. By this Means, all your Colonies will be well ſtocked with Bees, in which their Safety chiefly conſiſts: for whenever a Hive is reduced, by over-ſwarming, or otherwiſe, to a ſmall Number of Bees,

they commonly become a Prey to Robbers, or Moths, or ſome other of their Enemies: and though they eſcape their Enemies, they ſeldom proſper. If your Situation be good, and the Seaſon favourable, ſuch Colonies as require a fourth Box to prevent ſecond Swarms, will uſually allow you to take two Boxes from them in the Autumn.

3. Your Bees will be much better protected from their *Enemies*, in theſe Boxes, than in Hives. *Mice* pretty frequently make their Way through Straw-Hives, and deſtroy them, but unleſs you make the Mouth too large, they can no Ways enter your Boxes.

The *Moth* is, in Appearance, the weakeſt of all their Enemies, yet deſtroys more Bees, than all their Enemies beſides. She lays her Eggs, under the Skirts of the Hives, and the

Warmth of the Bees hatch them to their own Deſtruction. From the Egg iſſues forth a ſmall whitiſh Worm, or Caterpillar, which inſtantly ſpins itſelf a fine, ſilken Sheath, or Gallery, which protects it from the Attacks of the Bees: for theſe Galleries being wrought like a Spider's Webb, the Bees avoid them, it may be ſuppoſed, for Fear of being entangled therein. Theſe Worms, as they increaſe in Bulk, enlarge their Galleries, till they reach the Combs, when putting out their Heads, which are armed with Scales, as with a Helmet, and ſo impenetrable by the Bees Stings, they ſecurely feed on and devour their curious Works, till the poor diſtreſſed Bees are forced to abandon their Habitation.

My Boxes, I freely own, will not ſecure the Bees from theſe dangerous Enemies;

Enemies; but they are not, I have Reaſon to think, ſo much infeſted with them as Hives are. Beſides, there is a Remedy to be had in Boxes, which Hives will not admit of; for by Means of the Glaſs Lights, you may diſcover the Moths, before they have done much Damage; and you may take away the infected Box, and ſave the others; or you may clear it of Moths, and then reſtore it to the right Owners.

4. In the Uſe of theſe Boxes, you are furniſhed with the only Method of preſerving poor Stocks by *feeding* them. The beſt Way hitherto practiſed, is to give them a large Quantity of Honey in *September*, moſt of which, if melted, and mixed with Water, to bring it to a proper Conſiſtency, they will lay up in their Combs for their Winter Store. I have many

many Times, tried this Method; and my Bees have periſhed with Hunger, with a good deal of this Honey remaining in their Combs. This, I think, can no Way be accounted for, unleſs we ſuppoſe, that the Honey, thus thinned with Water, will not keep, all Winter, in the open Cells; for the Bees never ſeal it up, as they do the Reſt of their Honey: or elſe, that the crude Wax, commonly called *Bee-Bread*, with which every Hive is ſtored, is as *neceſſary* to their Subſiſtence as Honey; and that when this is all ſpent, *Honey alone* will *not* keep them from *periſhing*.

But if your Bees are in the Boxes I have deſcribed, you have an eaſy and effectual Method of preſerving *Part* at leaſt of your *weak Colonies*: For you have Nothing more to do, than to burn the Bees of one poor Stock, and

and ſet the Boxes, or one of them, with all the Combs to another. By this Means, the Bees you ſave, are ſupplied with a freſh Store both of Bread and Honey, in their *natural State*; and enjoy the Labours of their ſuffering Brethren, in the ſame Manner, as they do their own. This, the good-natured Bee-Maſter, it is hoped, will comply with, now and then, though it be with Reluctance, ſince there is, in this Caſe, a cruel Neceſſity, either of *deſtroying* one Stock to *preſerve* another, or of ſuffering *both of them* to periſh.

5. It will not, I think, be neceſſary to ſay much concerning the Advantages of theſe Boxes, above thoſe of Mr. *Gedde*. His Boxes are directed to be each as large as a Buſhel; and they are to be raiſed, one upon another, three Stories high, with a Hole

of

of Communication in the Top of each Box. Now when the poor Bee, after traverſing the Fields far and wide, returns Home weary and heavy laden, She has Occaſion, perhaps, to depoſit her Burden, up two Pair of Stairs in the Garret. The lower Room, 'tis likely, is not yet furniſhed with Stairs, *i. e.* with Combs: For our little Architects, you know, lay the Foundation of their Structures at the Top, and build downwards. In this Caſe, the weary little Labourer, is to drag her *Crura Thymo plena* up the Sides of the Walls. When She has done this, She will travel, many Times, backwards and forwards, (as I have frequently ſeen) along the Roof, before She finds the Door, or Paſſage into the ſecond Story. Here again, She is perplexed with a like puzzling Labyrinth, before She gets

into the Third. What a Waſte is here, of that precious Time, which our Bees value ſo much, and which they employ ſo well? And what an Expence of Strength, and Spirits, on which their Support and Suſtenance depends? whereas, in the Collateral Boxes, the Rooms are all on the Ground-Floor: and becauſe I know my Bees are wiſe enough, to value Convenience more than State, I have made them of ſuch a moderate, tho' decent, Height, that they have much leſs Way to climb to the Top of them, than they have to the Crown of a common Hive.

6. The Difficulty of driving the Bees out of Mr. *Gedde's* Boxes, in order to take the Honey, has been touched upon before; as likewiſe the vaſt Expence of them; which alone, had they been never ſo well contrived in

other

other Reſpects, would be ſufficient to prevent their being brought into common Uſe. The Expence of my Boxes, and of the Frame I have deſcribed, if you make a reaſonable Allowance for the *Duration* of them, will not, I am confident, prove greater in the *End*, than the Charge of Straw-Hives, and of the Frames that are made, in moſt Places, for their Reception: and a great deal of this Expence may be ſaved, where the Bee-Maſter will be ſo provident, as to ſave or procure Ends and Remnants of Boards, of little Value, which may ſerve very well for this Purpoſe. The Charge of the Frame, too, may be ſaved, if he can ſpare a Place within any of his Buildings (eſpecially if they be boarded) where he may fix his Stools for the Boxes to ſtand on, making Holes at proper

Diſtances for the Bees to work out at: nor need he be very ſolicitous concerning the Aſpect, or Height of his Buildings: for I have known Bees thrive well, and get a large Quantity of Honey, which were placed almoſt at the Top of a high Turret in *Trinity College*, and on the North Side of it.

The CONCLUSION.

HAVING now fully inſtructed the candid Reader, in the Structure, Uſe, and Advantages of my Boxes, I ſhould here leave him to calculate, by himſelf, his *future Profits*, in this *new Method* of managing his Bees, but that I am a little afraid he will reckon too faſt; and this

this I think myſelf bound in Conſcience to prevent. " I have now got " half a Dozen old Hives, ſays the ho- " neſt Countryman, and I will imme- " diately order my Carpenter, to make " Col—what d'ye call'um, Boxes, for " all my Swarms. Every Swarm I get, " will add to my Stock; and I ſhall " hardly be ſuch a Fool, as to leſſen it " any more, by *burning* the *poor things*, " ſince I can get Honey and Wax e- " nough for the Market without it. So " this Summer, if I have any Luck, I " ſhall have Six Swarms at leaſt, then " the Number of my Colonies, as the " Parſon calls 'em, will be Twelve: the " next Summer, I ſhall have Twenty " Four; and ſo by doubling my Stock " every Year, I ſhall ſoon have as ma- " ny as my little Garden will hold."

The Romantick Lady, in the entertaining *Hiſtory of Bees*, tranſlated from

from the *French* in 1744, has quite outdone my Countryman, in *her* Computations. Her Philoſopher had told her of a wild and impracticable Method, of taking Part of the Honey, and ſaving the Lives of her Bees, by driving them into a Corner of the Hive, by the Smoak of a Rag, while the Operator (bold Man!) ſhould pare away with his Knife, as many of the Combs as he thought proper. Upon this, the charitable Lady, tranſported with the Diſcovery, forms the following benevolent Scheme, for the Benefit of her poor Neighbours. *Every Inhabitant of my Hamlet*, ſays ſhe, *ſhall be provided with two Hives. Every Hive*, [in France] *will, one with the other, produce two good Swarms, ſo a Man who is now poſſeſſed of Two Hives, will have Six next Year, Eighteen the following,*

Fifty

Fifty four the fourth, and the Fifth a Hundred and Sixty two, AND SO ON. The good Lady, I think, might have been content (but her Charity knew no Bounds) with the laſt-mentioned Number, and ſpared her *&c.*

This was likewiſe the ſerious Language of *Greſham College*, in the Approbation above mentioned, which I am ſorry ſhould come again in my Way. *Thus much* (ſay they) *may certainly be affirmed, that by the Methods laid down in Mr.* Gedde's *Treatiſe, in few Years, there need not be any or few Poor, in the Land. Every Cottager, having but Room to keep Bees in, may, from one Stock, in a ſmall Time, raiſe Twenty, which, with little Care and Labour, may be better than Ten Pounds per Annum to him.* How great is the Pity, that not one Cottager (I believe) in the Space of Four-

ſcore Years, has been prevailed on, to take this eaſy and certain Method of growing rich? for my Part, I am far from expecting ſuch great Things from my preſent Undertaking: and yet, if conſidered as a Projector, I am not ſenſible, that I want a proper Aſſurance, and my Reader, I fancy, by this Time, may be of the ſame Opinion. But being now almoſt ready to take my Leave of him, I will tell him honeſtly, and ſeriouſly, what he is to expect, if it ſhall pleaſe him to make Trial of my Boxes. In a few Years, I will venture to promiſe him, he will encreaſe his Stock, to as great a Number, as the Flowers in his Neighbourhood will maintain, but my Aſſurance will carry me no further; and ſad Experience has taught me, that in ſome Situations, like this, in which I am

I am myſelf (in this one Reſpect) unhappily placed, that Number will be found very ſmall. There are now, in the Village where I dwell, which is a large one, only Ten Hives or Colonies of Bees: and though we have beautiful Meads, and fine Gardens, in which *Flora* diſcloſes all her Treaſures, yet for want of a free and open Air, (as I conjecture) in theſe thick Encloſures, our Flowers yield ſo little Food for the poor Bees, that no greater Number, I am well ſatisfied, than what I have mentioned, or thereabouts, can get a Subſiſtence in this Place: whereas, in the neighbouring bleak County of *Cambridge*, where the Inundations of the Fens, or the Farmer's Plow, or the Flocks that are grazing (ſhould I ſay, or ſtarving?) on barren Heaths, will ſuffer hardly any Flowers to ſpring,

or open their Bloſſoms, (excepting the *Flowers of Eloquence*, which thrive exceedingly on the Banks of CAM, but theſe afford only a thin Sort of

Juice Nectareous

fitter for Poets to feed upon than Bees;) yet here, I ſay, there is ſuch a Profuſion of Honey, in the few Flowers that eſcape, that I have ſeen between Seventy and Eighty Hives in one Farmer's Yard: and this, juſt after the *Inquiſition* was over, and he had been *murdering* all he intended to *murder* that Seaſon. And theſe Hives, I know too well, were much better ſtored with Honey, than any are found to be in theſe Parts.

Now ſhould this honeſt Farmer, by way of rewarding me for theſe my Labours, for his Benefit, make me a Preſent of Forty or Fifty of his Colonies, and ſhould be ſo kind as to bring

bring and place them in my Garden, what, think you, would be the Conſequence of his Generoſity? Nothing leſs than a dreadful Famine. The New-comers would be ſtarved themſelves, and would ſtarve all my poor Neighbours Bees, for Three or Four Miles round me. They would be ſo far from laying up any thing for a Winter's Day, that many of them, I believe, would die for Want, in the midſt of Summer.

I have often thought it very ſurprizing, that neither the Authors who treat of Bees, nor the Keepers of them, ever imagine, that any Place can be over-ſtocked, or that any one's Bees fare either better or worſe, for the larger or ſmaller Stock that is kept in his Neighbourhood. They think, it ſeems, that every Flower they ſee, is a never-failing Cruiſe of Honey. Let

me here acknowledge the Bounty of our Creator, and with due Thankfulneſs and Admiration confeſs, that, in ſome Senſe, it is ſo: For when a Bee, with its little lambent Trunk, has cleared a Flower of all its *preſent Store*, another comes, 'tis likely, in leſs than a Minute, and finds *ſomething:* For the delicious Juice is continually ſweating thro' the Pores of the Plant. But, 'tis certain, for all this, that the more of theſe Gueſts viſit a Flower, the worſe muſt each of them fare: They will have the leſs to carry Home, or, which is all one, they muſt go further, and ſpend more of their precious Time, before they can make up their Burden.

This Conſideration gives a mighty Check, I muſt own, to the Expectations I ſhould otherwiſe have from my new Boxes. Was it not for this, I could

could be as bold, and as large in my Promiſes, as the Undertakers that have gone before me. I could tell my Countrymen, that I would take upon me to maintain all their Poor, and make their Rates needleſs.

But this is not my Language. My Country, I flatter myſelf, will reap ſome Benefit from the Pains I have taken. There is Reaſon to believe, that in many Parts of the Kingdom, the little Labourers in Honey and Wax, are *not ſufficient* for the *Harveſt*; and my Method of managing Bees, if followed, muſt unavoidably encreaſe the Number of them; and will encreaſe it ſo far, that all the Honey and Wax which the Flowers of our Climate will yield, will be collected into their Store-Houſes. And this, perhaps, may be a Saving to the Nation, of all that Money, with which

which we purchaſe baſe and adulterate Commodities of this Sort, imported from Abroad.

I ſhall likewiſe, I hope, have the Satisfaction to find, that many of the poorer Sort will be *benefited*, tho' not *enriched*, by this Method. My Scheme, I am well aſſured, will furniſh them with *Stock*, at a cheap and eaſy Rate; but I muſt tell them once more, that *they* muſt find *Paſture*.

POST-SCRIPT.

WHILE theſe Sheets were in the Preſs, the Author was informed, that the Royal Society *thanked the Gentlemen* who communicated Mr. *Gedde's* Invention to them: and that it is ſaid in their *Tranſacti-*

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ons (Vol. viii.) that his *Method of managing Bees had been uſed in* Scotland *with good Succeſs:* But that they gave him no Authority to prefix to his Book a *formal Approbation* in *their* Name, as he has done. The Reader, therefore, is deſired to look upon this pretended Approbation, as the Effect of Mr. *Gedde's* own Vanity and Falſhood: and the worthy Gentlemen of the Society will excuſe, it is hoped, the Author's ſpeaking of it, as it *did*, and *muſt* appear to him, before he received the above Information.

FINIS.